

## **CLAIMS**

1. A plastic injection molded centrifugal impeller comprising a circumaxially spaced series of air moving blades each having inner and outer edges and longitudinally extending inner and outer portions on opposite sides of an intermediate longitudinal line, an end ring at the inlet end of the impeller formed integrally with and interconnecting the blades, said ring having an inner diameter greater than that of the blade inner edges and an outer diameter greater than that of the blade outer edges, and a back plate formed integrally with and interconnecting the blades at an end thereof opposite the inlet ring, the diameter of the back plate being at least equal to that of the inner edges of the blades, and the foregoing characteristics of the impeller accommodating the molding of the blade inner portions in the core of the plastic injection mold and the molding of the blade outer portions in the cavity of the mold.
2. A plastic injection molded centrifugal impeller as set forth in claim 1 wherein the inner diameter of the inlet ring is approximately 1 to 7 percent less than the diameter of the outer edges of the blades.
3. A plastic injection molded centrifugal impeller as set forth in claim 1 wherein the outer diameter of the inlet ring is approximately 1 to 7 per cent greater than that of the outer edges of the blades.
4. A plastic injection molded centrifugal impeller as set forth in claim 1 wherein the diameter of the back plate is larger than that of the inner edges of the blades, and wherein the blades have notches at their inner edges adjacent the back plate to receive the same

5. A plastic injection molded centrifugal impeller as set forth in claim 1 wherein the blades are notched to receive an inner edge portion of the end ring.
6. A plastic injection molded centrifugal impeller as set forth in claim 1 wherein the end ring extends axially a short distance beyond the ends of the blades.
7. A plastic injection molded centrifugal impeller as set forth in claim 1 wherein the blades have rounded inner edges.
8. A plastic injection molded centrifugal impeller as set forth in claim 1 wherein the impeller blades are forwardly curved.
9. A plastic injection molded centrifugal impeller as set forth in claim 1 wherein the outer portions of the blades are thinner than the inner portions thereof.
10. A plastic injection molded centrifugal impeller as set forth in claim 2 wherein the inner diameter of the inlet ring is approximately 2 to 5 percent less than the diameter of the outer edges of the blades.
11. A plastic injection molded centrifugal impeller as set forth in claim 3 wherein the outer diameter of the inlet ring is approximately 2 to 5 percent greater than that of the outer edges of the blades.